

In the Claims

1. **(currently amended)** A process for preparing a cycloorganylphosphane of **formula I**



by reaction of a dihalo(organyl)phosphane of the formula $R^1P\text{Hal}_2$,

wherein

R^1 is C_1 - C_{12} alkyl; C_3 - C_{12} cycloalkyl, aryl or heteroaryl,

Hal is F, Cl, Br or I, and

n is a number from 3 to 20,

with

a) activated zinc in an organic solvent, or with

b) ~~sodium~~an alkali metal or alkaline earth metal in a non-polar organic solvent in the presence of ~~tetramethylethylenediamine~~an activator selected from the group consisting of ethers, polyethers, amines, polyamines, aromatic N-heterocycles and carbonic acid derivatives, wherein the ratio by volume of non-polar solvent to ~~tetramethylethylenediamine~~activator is from 10 : 0.1 to 10 : 5.

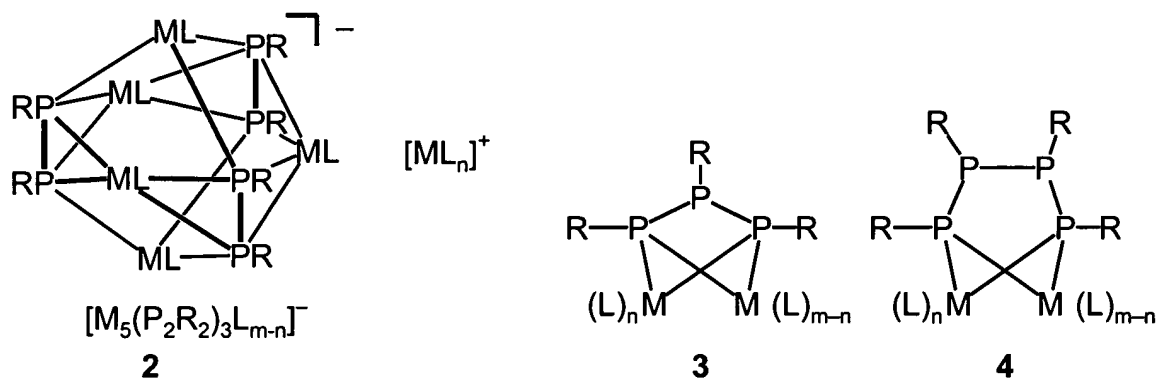
2. **(previously presented)** A process according to claim 1 for preparing a cycloorganylphosphane of **formula I** by reaction of a dihalo(organyl)phosphane of the formula $R^1P\text{Hal}_2$ with activated zinc in an ethereal solvent.

3. **(currently amended)** A process according to claim 1 for preparing a cycloorganylphosphane of **formula I** by reaction of a dihalo(organyl)phosphane of the formula $R^1P\text{Hal}_2$ with ~~sodium~~an alkali metal or alkaline earth metal in a non-polar organic solvent in the presence of ~~tetramethylethylenediamine~~an activator selected from the group consisting of ethers, polyethers, amines, polyamines, aromatic N-heterocycles and carbonic acid derivatives, wherein the ratio by volume of non-polar solvent to ~~tetramethylethylenediamine~~activator is from 10 : 0.1 to 10 : 5.

4. (currently amended) A process according to claim 3 wherein the non-polar organic solvent is toluene and the activator is tetramethylethylenediamine or dimethoxymethane.

5. (previously presented) A process according to claim 1 wherein R¹ is phenyl.

6. (original) A di(alkali metal/alkaline earth metal) oligophosphanediide of the structural formula 2, 3 or 4



wherein

R is C₁-C₆alkyl; C₃-C₆cycloalkyl, aryl or heteroaryl;

M is Li, Na, K, Cs or Mg;

Hal is F, Cl, Br or I;

L is an activator; and

n and m denote the number of coordinated molecules L, which may be from 1 to 8.

7. (original) A di(alkali metal/alkaline earth metal) oligophosphanediide according to claim 6 wherein R is phenyl and L is tetramethylethylenediamine or 1,2-dimethoxyethane.

8. (previously presented) A process for the preparation of a di(alkali metal/alkaline earth metal) oligophosphanediide of formula (2), (3) or (4) according to claim 6 by reaction of a dihalo(organyl)phosphane of the formula $RPHal_2$, wherein

R is C_1 - C_{12} alkyl; C_3 - C_{12} cycloalkyl, aryl or heteroaryl,

Hal is F, Cl, Br or I, and

n is a number from 3 to 20,

with an alkali metal or alkaline earth metal in a non-polar organic solvent in the presence of an activator, wherein the molar ratio of alkali metal or alkaline earth metal to $RPHal_2$ is > 1 .

9. (previously presented) A process for the preparation of an organophosphorus compound

by reaction of a di(alkali metal/alkaline earth metal) oligophosphanediide of formula (2), (3) or (4) according to claim 6 with

an alkyl halide, trimethylsilyl chloride, sulfur, an arylcarboxylic acid chloride or trimethylsilyl chloride and subsequently a carboxylic acid chloride.

10. (previously presented) A process according to claim 2 wherein R^1 is phenyl.

11. (previously presented) A process according to claim 3 wherein R^1 is phenyl.